THE CHEMIST

NOVEMBER 1949 VOLUME XXVI No. 11

DR. OTTO EISENSCHIML

Presented Honor Scroll of Chicago Chapter, AIC

(See page 445)

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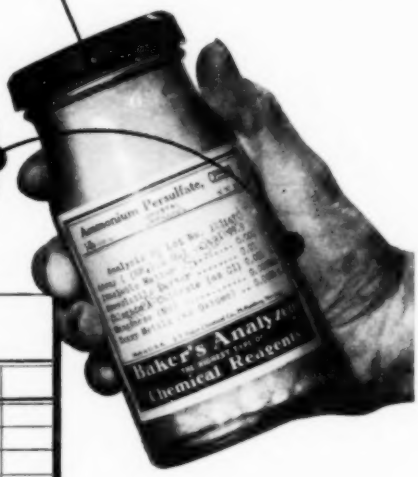

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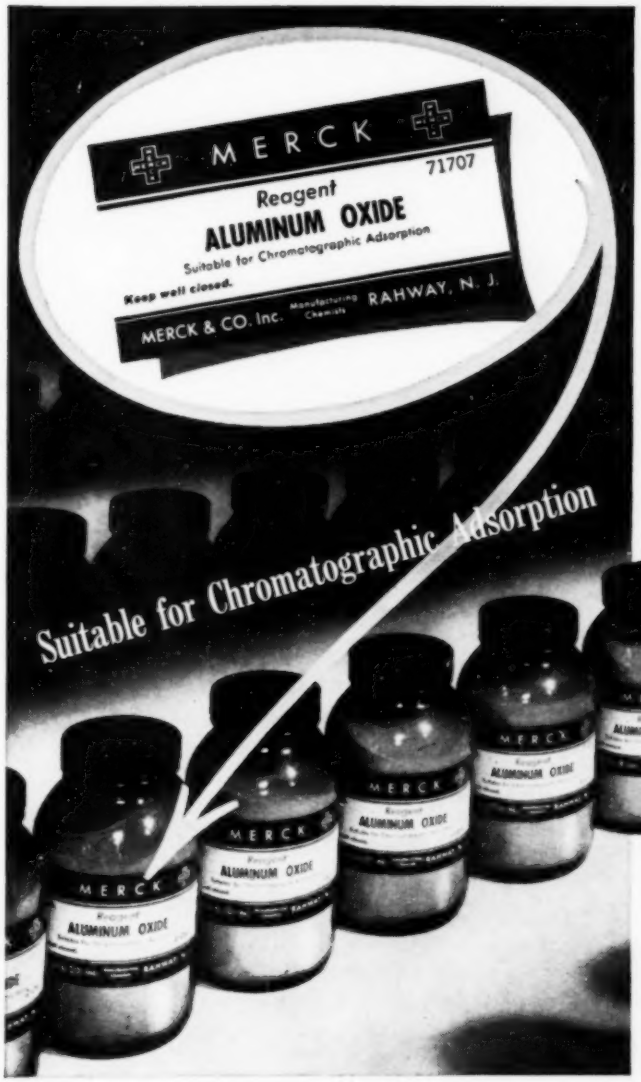

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SCHEDULED FOR EARLY ISSUES

The Chemists' Economic Status (Annual Meeting Paper), by Dr. Louis Koenig, F.A.I.C.
Was the U.S. Patent System Planned for Supermen? By A. John Michel, F.A.I.C.
How Good an Employer Is Your Company? by Howard Nechamkin, M.A.I.C.
Industry Looks to Education, by Dr. Frank M. Surface.
Toxic Materials in Industry, by Dr. Laurence T. Fairhall, F.A.I.C.
A Challenge to Medical Research, Dr. Herman J. Schneiderwirth, F.A.I.C.
The Increasing Responsibilities of the Chemist, Ralph Lamenzo, F.A.I.C.
The Chemistry of Intelligence, by Dr. Edward Podolsky.
Other Material.

IN THIS ISSUE

Annual Meeting 1950

The 1950 Annual Meeting of The American Institute of Chemists will be held Thursday and Friday, May 11 and 12, 1950, at The Hotel New Yorker, New York, N.Y. Dr. Maurice J. Kelley, F.A.I.C., director, Industrial and Development Laboratory of Nopco Chemical Company, Harrison, New Jersey, is chairman of the Committee on Arrangements for the Meeting. John E. McKeen, F.A.I.C., president of Charles Pfizer and Company, Brooklyn, N.Y., is chairman of the Banquet Committee. The Gold Medal of the AIC will be presented to Dr. Walter J. Murphy, F.A.I.C. (*See page* 427)

Further information will be announced in succeeding issues of THE CHEMIST.

Dr. Gustav Egloff, Hon. A.I.C., took the stand that the loyalty program is a necessary measure, when he appeared on the ABC-Bar Association television program, broadcast September twenty-first. The subject in debate was, "Is the Loyalty Program for Scientists a Necessary and Reasonable Security Measure, or Does it Involve Undue Restrictions on the Civil Liberties of Scientists?"

The Eight-Millionth Prescription

Eimer & Amend Apothecary, 49 East 34th Street, now ninety-eight years old, will award a $100 U. S. Savings Bond to the patient for whom it compounds its eight-millionth new prescription. In 1851 Bernard G. Amend, a former assistant of Liebig, purchased the apothecary. In 1856, Carl Eimer joined the firm, which changed its name to Eimer & Amend.

ANNOUNCEMENT

Chapter Membership

President Lawrence H. Flett, A.I.C.

(An announcement of especial interest to every non-Chapter member of the INSTITUTE.)

APPROXIMATELY fifteen per cent of the members of THE AMERICAN INSTITUTE OF CHEMISTS have not belonged to any chapter. A great many of these members live at points very remote from any chapter. These people miss much of the personal relationships and constructive discussions which are so profitable to chapter members.

The Council has considered it wise to allocate all members to chapters. It is recognized that some of these members may live at such distances from the chapter headquarters that attendance at chapter meetings will be rare or impossible. Nevertheless, such members will be given some opportunity to participate in chapter affairs.

Any group that wishes to meet locally for the discussion of professional advancement can form a new chapter. The formation of a new chapter requires a petition to the Council signed by ten Fellows of the INSTITUTE. The discussions from such local groups are beneficial for the INSTITUTE, even though the groups may be small. Chapter meetings are the source of much of our professional literature. There are fourteen states, where no chapter now exists, which have a sufficient number of members to establish a local chapter.

If the present chapters can find it possible to hold meetings of small groups of members in the more remote areas of their territory, it will help to establish greater bonds of friendship and cooperation among such members.

The allocation of territory for the various chapters was drawn up by Dr. Frederick A. Hessel, treasurer, AIC, and was approved by the Directors with slight modifications. The new allocations are as follows:

To the Chicago Chapter

South Indiana	7
Iowa	8
Kansas	4
Michigan	44
Minnesota	24
Missouri	19
Nebraska	4
North Dakota	1
South Dakota	2
Total New Members	113

To the Los Angeles Chapter

Arizona	4
Northern California	28
Colorado	8
Montana	1
New Mexico	3
Oregon	2
Utah	2
Washington	13
Total New Members	61

To the Louisiana Chapter

Alabama	15
Florida	21
Georgia	14
Oklahoma	15
Texas	22
Arkansas	4
Total New Members	91

To the Niagara Chapter

Northern New York	53
Total New Members	53

To the Pennsylvania Chapter

West Virginia	6
Delaware	19
Total New Members	25

To the Ohio Chapter

Kentucky	10
Tennessee	14
Total New Members	24

To the Washington Chapter

North Carolina	14
South Carolina	5
Southern Virginia	28
Total New Members	47

To the Baltimore Chapter: None
To the New Jersey Chapter: None
To the New York Chapter: None

It will be noted that no allocation was made for the New England members, where a chapter is in the process of formation.

Those who read THE CHEMIST and participate in the discussion of professional matters have shown great progress professionally. Members of the INSTITUTE have an enviable record for leadership in research, in business, in publication and in education. The purpose of the new move is to stimulate further discussions and better ideas, which in turn provide better articles for THE CHEMIST.

Kinneberg Goes to Continental Oil

Ivar H. Kinneberg, M.A.I.C., accepted a position with Continental Oil Company, Ponca City, Oklahoma, as patent engineer, beginning August first. He was formerly with Great Lakes Carbon Corporation in a similar position, and before that with Universal Oil Products Company as a senior research chemist.

Gold Medal Award

Dr. Walter J. Murphy, F.A.I.C.
Medalist for 1950.

McKeen Elected President

John E. McKeen, F.A.I.C., has been elected president of Charles Pfizer & Company, Inc., Brooklyn, N.Y. Mr. McKeen joined Pfizer in 1926 as a control chemist. He then progressed to departmental head, assistant superintendent of the plant, and executive vice president. He received the degree of Ch.E. from Polytechnic Institute of Brooklyn in 1926, but continued his studies there and at Columbia University by taking special courses for several years.

1950 Award to Dr. Murphy

Dr. Walter J. Murphy, F.A.I.C., American Chemical Society editor, has been selected to receive the 1950 Gold Medal of The American Institute of Chemists for his outstanding contributions to the advancement of the chemical profession.

President Lawrence H. Flett stated that the award is made in recognition of "a great editor, who has focused the world's attention on chemists and their contributions as professional men." The award emphasizes the increasing importance of the technical writer's role in reporting, explaining, and stimulating the progress of science, Mr. Flett said, pointing out that this is one of the few instances in which a high scientific honor has been conferred upon an editor.

Since 1943, Dr. Murphy has been editor of *Chemical and Engineering News, Industrial and Engineering Chemistry,* and *Analytical Chemistry.* He is also director of the American Chemical Society News Service.

The medal will be presented at the Annual Meeting of the Institute to be held in May.

The Functions of University Research

The third annual conference on The Administration of Research was held at Pennsylvania State College, State College, Pennsylvania, September 12th to 14th. Its theme was "The Functions of University Research." Speakers were: Sam Tour, president, Sam Tour and Company, Inc., who challenged universities in non-profit encroachment on private industrial research; Dr. Frederick C. Lindvall, chairman, Division of Engineering, California Institute of Technology, who covered the advancement of basic knowledge as an aid to university training and stressed the need for limiting university research to matters which correctly aided university training programs; and Hugh L. Dryden, director of Aeronautical Research, N. A.C.A., who stressed cooperative basic research between government agencies and universities.

The dinner speaker, Lawrence A. Hyland, of Bendix Aviation Corporation, gave an analytic report of the trends of university research and research on a national scale. He pointed out that the bulk of the basic research must be supplied by the Universities and developed much more freely than under the present methods of sponsorship. He advocated passage of the National Science Foundation Bill and an increasing amount of support from Federal agencies of the grants-in-aid type as an interim measure only.

The second day's subjects covered the control of university research in terms of dissemination of results of university research, patent policy, and methods for evaluation of industrial research. The final day was devoted to a panel discussion on present methods of supporting research in universities, the establishment of new patterns as evidenced by the Research Corporation, and the necessity for developing new means of support by private or industrial sponsors.

New Research Center

The new Esso Research Center at Linden, New Jersey, was dedicated by Standard Oil Development Company on October 17th. This ultra-modern structure provides working facilities for 600 professional men and their assistants. Standard says, "There is one part of this scientific center which no one can see or hear or touch. That is the talent of the people who work here, and of the people who in earlier laboratories laid the groundwork for the efforts of oil technologists today . . . The individual, with his ingenuity and his urge to solve difficult problems, is just as important today as ever. He will be just as important tomorrow." An illustrated pamphlet describing the new research center may be obtained on request, from Standard Oil Company, (New Jersey) Room 1626, 30 Rockefeller Plaza, New York 20, N.Y.

The Responsibilities of the Community to Its Chemists

Dr. Otto Eisenschiml, F.A.I.C.

President, Scientific Oil Compounding Company, Chicago, Illinois

(Acceptance Address on the occasion of the presentation of the Honor Scroll Award of the Chicago Chapter, AIC, to Dr. Eisenschiml.)

FOR many years past, you and I have been listening to papers on "The Responsibilities of the Chemist to his Community." Such addresses have been given by industrialists, teachers, supervisory chemists and others. Let me say that I, for one, am getting a bit tired of this theme, and I hope you will bear with me when I shift into reverse, and discuss, "The Responsibilities of the Community to Its Chemists."

Some time ago a Chicago newspaper featured a front-page story about a newsboy who, at the age of fifty, was retiring with savings of $50,000. His erstwhile customers tendered him a banquet, and toasts were drunk to his continued welfare and prosperity. No doubt the community felt that it had a responsibility toward this ex-newsboy. Maybe so. I wish, though, that I could recollect a banquet given in honor of a chemist who was able to retire at that age, with or without fifty thousand dollars.

Now, what had this paper vender done to earn the gratitude of the commonwealth? He had stood at a downtown corner, crying out his "Extra", probably adding the traditional,, "All about the muder on the South Side." To me there seems little of public service in this; but perhaps newsboys in the very nature of their calling, are so close to literary culture that they deserve special consideration. You may have heard of the old lady who saw a little boy carrying a stack of papers across the street.

"Don't these papers make you tired?" she asked.

"No, ma'm," was the reply, "I only carry these papers, I don't have to read them."

Which illuminates the cultural aspect of the newsboy problem.

Can it be that without the shouts of that man who had made it his life's career to fill a boy's job, his customers would not have bought papers at all, and that this made him so important? What other justification was there for the distinction bestowed on him?

Let me select another and more recent news item. When Ethel Barrymore celebrated her 70th birthday, she, too, was feted at a banquet. Congratulatory telegrams were showered

on her, many of them from high-placed personages. In substance they said that all Americans owed the celebrated actress a debt of gratitude for having provided them with much worth-while entertainment.

Far be from me to begrudge Miss Barrymore her bouquets. I hope she lives to be a hundred and continues to delight her audiences. But do we ever hear of public celebrations for chemists, just because they have reached the age of three-score and ten? When Dr. Alexander Fleming, the discoverer of penicillin, visited Chicago a few years ago, he was given only a short notice on the back page of our papers. Hundreds of thousands have been benefited by his work and, while not exactly being entertained, they owed him their lives or those of relatives or friends. What is more precious, an hour of pleasant relaxation or human life? And to whom does the community owe the greater appreciation?

Your Fault and Mine

Human nature being what it is, the community will pay homage to those who clamor for it, and withhold it from those who do not. During the late war, I happened to be lecturing in Nebraska, and a judge out there maintained that it was the lawyers of America who were winning the war, because they were drawing up the rules for our war industries. Then, shortly after V-J day, the advertising men of America held a convention, and the messages they received conveyed the thought that it was their slogans which had really done the trick. The chemists were neither active in presenting their claims, nor successful in having them recognized. Perhaps they believed it to be common knowledge that they had produced the octane gasoline which helped give us air supremacy, overcame the fatal rubber shortage, developed the incendiary bombs which ate into the vitals of our enemies, and that they had conquered a thousand and one other war problems which called for immediate and correct solutions. In spite of all this, the community passed the chemists by, adjudged them non-essential, and drafted them as rifle bearers, not only during the war, but even long after the firing had ceased.

Let us not blame the community for its ignorance regarding our profession. What we call the public mind is a complex structure made up of millions of personal opinions. It can not be expected to function properly unless it is properly informed. It is our fault, your fault and mine, that this information has never been successfully formulated and distributed. We constantly talk about chemistry, but we rarely talk about chemists. The public has been well educated to the fact that chemistry is a useful science, in war as well as in peace, but chemistry as such can no more be understood than the movie industry can as a mere industry. What people understand are, first of all, human beings,

stars such as Clark Gable, Ginger Rogers, Van Johnson; next, they can understand the drama of events. This may explain why the moving picture industry occupies such a high rank in the public mind.

Other professions profit by the same factors. After an operation, do you hear a patient say that his appendix was removed by medical science? Of course not. He mentions his doctor by name, and then describes his operation. In contrast, we chemists, who can supply interesting people and fascinating dramas wholesale, keep on singing the trite and tuneless song called chemistry. Chemistry, we say, has furnished the world with another wonder drug, or from the laboratories of this or that company has come another great discovery. No one can visualize chemistry, and a laboratory is nothing but a pile of bricks with some equipment in it. No wonder the lay public thinks making chemical discoveries is neither more intriguing nor difficult than making hamburgers. You buy a sausage grinder, fill it with meat, and after a few minutes you have a hamburger. Similarly, a man goes to college, graduates, spends some time at a bench, and out comes a discovery. No one cares about that obscure human being called chemist, who sweats and worries, tosses sleeplessly at night, suffers set-back after set-back and finally, through ingenuity and persistence, may or may not emerge with a finished laboratory product. But the road ahead is still full of holes. His process must be put through a pilot plant, where new disappointments await him; and after the pilot plant has confirmed his findings, large-scale production follows with more problems and more grief. At last victory is in sight, and what happens? The papers announce in three or four lines that So-and-so Company has developed a new product; that is all. The chemist's name is rarely, if ever, mentioned, nor is it missed. The epic of what has happened backstage to make the new product possible remains unwritten.

Cite Names with Events

No one will deny that chemists have made and are making history; but how can history be interesting unless we cite names and events? Eliminate Caesar, Hannibal, Napoleon or Washington from our books, and who will read them? Aside from wanting to hear all we can about their personality, we want to know what plans they evolved in their minds, how or why they triumphed and, if that is what was their fate, how and why they went down with their cause.

If we want to make chemistry intelligible and interesting, we must stop dealing in generalities. We should portray each chemical advance with full, colorful background; we should introduce the active participants as individuals, picture the obstacles which a malicious nature threw

into their path, and the process of reasoning and experimenting by which these obstacles were overcome.

The mere statement that Pasteur was the father of bacteriology would carry no punch. But if you study his life, or see the moving picture of which he was the hero, you get an idea of what a great chemist has to go through before he wins out. Admittedly, not all chemical discoveries are world-shaking like Pasteur's, but many of them are important, and even the lowliest of them is an interesting story which needs be told, if we want to give the public a realization of our work.

Let me use some illustrations. If I should ask you, ladies, what the name Wallace H. Carothers conveys to you, would you know? Well, Carothers was the chemist to whom you owe your Nylon stockings. Ask your enlightened friends who discovered the aniline dyes which beautify your dresses, or the vitamins of which you hear so much, or even the common, everyday aspirin. When Grant rode to meet Lee at Appomattox Court House, he had such a headache that he hardly managed to stay in the saddle, but at that time all you could do with a headache was take it to bed with you and sleep it off. Today we swallow a couple of tablets, and the headache is gone; but the discoverers of aspirin have been forgotten, if ever they were known. And that also goes for vitamins, stainless steel, artificial leather, ethyl gas, and hundreds of other inventions which have sprung from the minds of chemists and are constantly contributing to our health, wealth, and comforts of life.

The seasickness drug Dramamine, which was invented by the Chicago chemist, John W. Cusic, was given wide publicity by newspapers and magazines, and the physicians who tried it out were prominently mentioned. Even the patients, on whom the new drug was used, saw their names in print. Yet nothing was said about the chemist whose inventive genius had made this achievement possible.

What was one of the principal reasons why the British spitfires won the Battle of England? They outflew the German Messerschmitts. And why did they outfly them? Because the American chemists V. N. Ipatieff and Herman Pines had developed the 100-octane aviation gasoline. Yet mention their names to a layman, and he will ask with raised eyebrows, "Who, pray, are they, and what have they done that I should know them?"

Would you believe that in the whole city of Chicago not a single street, park, library or school is named after a chemist? In the stock yards district, where they are so proud of telling you that the only unutilized part of a pig is its squeal, the chemists who brought about this miracle of chemical perfection are not remembered, and the streets out there do not

bear the names of pioneer packing plant chemists like Richardson, Louwenstein and Schmidt, but those of dead real-estate speculators and their obscure sweethearts.

In all of our great city only one monument is dedicated to a chemist. It is not much of a monument; it is only a boulder, and stands modestly at a wayside, as you might expect. The name of this chemist was Samuel Guthrie, and the world is indebted to him for the discovery of chloroform. He did not cry out his wares at a street corner, he did not entertain people, but he saved million from untold agonies. And, since a chemist lives an anonymous life, it was perhaps thought that he should also remain anonymous after death, for his name was not engraved on his memorial until a few years ago, and then it was not the City of Chicago but the American Medical Association which put it there.

I have no fault to find with those who stress the responsibility of the chemist to his community. By all means, let him serve his fellow-citizens to the best of his ability. I only would like to see a similar gospel spread among other professions and trades as well. Why we chemists have singled ourselves out to apologize for the very breath we take and the bread we eat will always be a puzzle to me.

Responsibility is a two-way street, and I venture to say that, on balance, we chemists are putting more into the community pot than we are taking out. Not that we as individuals are more altruistic than others; but in the very nature of our work we must continuously invent, improve, or cut costs, because unless we do, we starve.

Once the public understands this, the question of who owes whom will resolve itself automatically; and if we present our case fairly and convincingly, the people among whom we live will realize that their responsibility toward chemists outweighs the responsibility of the chemists to them.

Our duty to the community can best be discharged by making our fellow-citizens better acquainted with the part we as individual chemists play in their lives. It will redound to their benefit, as well as to ours.

When and if this happens, and not before, will the chemical profession be accorded the place it deserves, which, I maintain, is close to the head of the human procession.

Debye Honored

Professor Peter J. W. Debye, F. A.I.C. of Cornell University, Nobel Laureate in Chemistry for 1936, will be initiated as an honorary member of Phi Lambda Upsilon, November 15th, at The Ohio State University, Columbus, Ohio. He will deliver two lectures on high polymers, at Ohio State, on November 14th and 15th, which are the first in a series of annual lectures sponsored by Eta Chapter of the fraternity.

Plant Maintenance Show

The first Plant Maintenance Show will be held in the Auditorium, Cleveland, Ohio, January 16-19. The program of the four-day exposition is sponsored by the American Society of Mechanical Engineers and the Society for the Advancement of Management. L. C. Morrow, editor, *Factory Management and Maintenance*, is general chairman. Advance registration cards, which provide admission to more than one-hundred exhibits and the conference, may be obtained without charge from Clapp and Poliak, Inc., 341 Madison Ave., New York 17, New York.

Consulting Chemists Elect

The Association of Consulting Chemists and Chemical Engineers, Inc., 50 East 41st Street, New York 17, N.Y., announces the election of new officers and councilors: President (re-elected), Percy E. Landolt, F.A.I.C. consulting chemical engineer, New York N.Y.; vice president, Stephen Laufer, F.A.I.C., Schwartz Laboratories, Inc., New York, N.Y.; Treasurer, Robert S. Aries, F.A.I.C., consulting chemical engineer, Brooklyn, New York, and Secretary, Albert Parsons Sachs, F.A.I.C., consulting chemical engineer, New York, N. Y. The new councilors, who will serve for three years are: Charles Davidhoff, consulting metallurgist, New York, N.Y., Erwin DiCyan, consulting chemist, New York, N.Y., Chester L. Knowles, F.A.I.C., consulting chemical engineer, New York, N.Y., Harry A. Kuhn, consulting chemist, Washington, D.C., and A. Rooseboom, chemical consultant, New York, N.Y.

New Sargent Plant

E. H. Sargent & Company, Chicago 11, Illinois, announces that its new building at 4647 West Foster Avenue, Chicago 30, Illinois, is now completed. Readers of THE CHEMIST are invited to inspect this new modern plant whenever they are in the vicinity.

Otto Eisenschiml The Chemist

Dr. Gustav Egloff, Hon. A.I.C.
Universal Oil Products Company, Chicago, Illinois

(Presented at the Award of the Honor Scroll, Chicago Chapter, AIC, to Dr. Eisenschiml.)

DOCTOR EISENSCHIML has often remarked that his chemist friends know him as a writer and his writer friends as a chemist. In truth, he is so outstanding as a chemist, author, historian and business executive that when examining his achievements in one field, it seems incredible that he could be distinguished in three others. My comments are limited to Eisenschiml, the chemist, which in itself is a full length portrait.

His chemical career began at the Vienna Polytechnic Institute from which he graduated in 1901. He was the third student in the history of that Institute to pass all studies with a 100 per cent mark. He attributes this distinction to his good memory rather than to his qualifications as a chemist. Looking at his contributions to chemistry during the intervening forty-eight years, it is clear that his chemical qualifications certainly had some bearing on the 100 per cent marks.

After graduation, he came to the United States. His first job was with the Carnegie Steel Company at Pittsburgh. He started out washing beakers and unpacking glassware at $50. per month, but within two years he took over the laboratory. Nevertheless, he was not pleased with the prospects for the future in Pittsburgh, and came to Chicago. For a brief period, fortune did not seem to favor him. His first job, with a company trying to make nitric acid from air, folded up shortly when the company went out of business. He then accumulated some experience in the field of shampoo manufacture and sales, passenger traffic checking, and waiting on tables. His experience as a waiter was particularly short-lived and did not survive the first meal he served. Only by pouring hot soup down a customer's neck could such an imaginative person stand it.

After that strange interlude, he returned to his chosen field as chief chemist for the American Linseed Oil Company. He advanced rapidly and, in 1907, was appointed manager of the Company's South Chicago plant and was put in charge of all its refineries from coast to coast. In 1911, he went into business for himself. He opened a consulting office specializing

in drying oils, gasoline explosions, and garbage extraction and, at the same time, established the Scientific Oil Compounding Company which he heads today. The measure of his success as an executive is evident, for he founded his Company with $75.00 capital and is today doing business at a rate of several million dollars per year.

Contributions to Oil Chemistry

His contributions to oil chemistry since the time he went with American Linseed are outstanding. When he started with that company, he was forced to familiarize himself with a product on which no technical literature existed. As one might guess, Eisenschiml decided to do something about this situation and, in 1908, published the first monograph on linseed oil. He has also written numerous articles on drying oils and is one of the world's leading experts in that field. His specialties are the lesser-known oils, such as Oiticica, Perilla, Hempseed, Kapok, and Sunflowerseed oil.

One of his first product developments was an oil preparation for the production of one-piece window envelopes. During the first World War he developed a substitute for Montan wax by using gilsonite as a base. He also invented a cheap flexible paint to prevent barbed wire entanglements from rusting, and furnished the government with preparations for gas-proofing balloons and waterproofing coats for the air force. The latter found extensive peacetime use in the manufacture of raincoats and other waterproof apparel.

Eisenschiml was among the first to become interested in soybean oil and introduced it into the protective coating field. In 1927, he founded and served as the first president of the American Soybean Oil Association. About that time, he forecast a soybean crop that would rival the cotton crop in size. He was mercilessly ridiculed, for the 1927 crop was not much more than three million bushels. Otto, however, had the last laugh when production hit the 200 million bushel mark fifteen years later.

Chemical Talents to Public Service

He has also contributed measurably to the laws and accepted standards for drying oils. In 1906, at the invitation of the State of Ohio, he helped to draw up a law on purity of linseed oil. It was the first of its kind and is still the basis of linseed oil laws on the statute books of most states. In 1910, with his assistant, H. N. Capthorne, he worked out a method for detection of fish oil in vegetable oils which was later accepted as standard by the U.S. Department of Agriculture. In 1911, he helped draft the ASTM specifications for China Wood Oil. The revision of the Illinois law on the purity of linseed oil in 1927 was under his supervision. At that time the Governor appointed

him chairman of the Illinois State Commission for the Purity of Paint Materials. He served in this capacity for the following fifteen years. He has also served frequently as an expert witness in court trials.

Eisenschiml has been exceedingly generous in devoting his chemical talents to public service. During the first World War, he formed a chemist's emergency committee, to aid, without cost, Chicago manufacturers in obtaining substitutes for products imported from Germany. During World War II, he was second in command of the Civilian Gas Defense of the Chicago area, and traveled extensively over the United States lecturing on civil defense. Walter J. Murphy, editor of *Chemical and Engineering News*, gives the following tribute in recognition of these activities: "Many sections of the American Chemical Society participated actively in civil defense programs, and a number of highly public-spirited members traveled extensively instructing civilians. . . Otto Eisenschiml, although not a young man, spent weeks lecturing in many parts of the country, and because his message was well-prepared and dramatic, his programs were well-attended and usually successful." He also served on the Executive Board of a voluntary association of twenty scientific and technical societies which advised war plants on urgent problems.

Despite his high success in other fields, Dr. Eisenschiml remains a chemist at heart. He will tell you that he conducts a chemist's business rather than a chemical business and will always retain a chemist's ethics, a chemist's ideals, and a chemist's outlook.

Honored

President Lawrence H. Flett, F.A.I.C., has been elected an Honorary Member of the Chemical, Metallurgical and Mining Society of South Africa for the year ending June 30, 1950.

Food Technologists Appoint Secretary

The Institute of Food Technologists announces that Col. Charles S. Lawrence will be its new executive secretary, October first. He will be located at 222 West Adam Street, Chicago 16, Ill., national headquarters of IFT. His long army career, which includes service in the Mexican Border campaign, World War I, and World War II at Bataan, will terminate with his retirement on September 30th.

IRI Medal to Jewett

The Industrial Research Institute, Inc., announces that its medal, awarded annually for "outstanding accomplishment in leadership or management of industrial research which contributes broadly to the development of industry or the public welfare," has been awarded, for 1950, to Dr. Frank B. Jewett, vice president of American Telephone and Telegraph Company, and former president of the National Academy of Sciences.

AAAS Chemistry Meeting

The Chemistry Section of the American Association for the Advancement of Science offers a full program of papers to be presented Friday morning, afternoon and evening, December 30th, and Saturday morning and afternoon, December 31st, in the Keystone Room of the Hotel Statler, New York, N.Y. The wide range of subjects includes antibiotics, physical chemistry, cardiac drugs, spectroscopy, rutin, the chemistry of titanium and germanium, radioisotopes, vitamin B_{12}, the biosynthesis of chlorophyll, blood protein-bound iodine, biological materials, and other subjects to a total of thirty-two separate papers. Each paper will be followed by a discussion period. Information may be obtained from Dr. Ed. F. Degering, Secretary, AAAS, Assistant Chairman, Department of Chemistry and Chemical Engineering, Armour Research Foundation, Technology Center, Chicago 16, Illinois.

Otto Eisenschiml – On Behalf of the Chemists

Dr. Louis Koenig, F.A.I.C.
Armour Research Foundation, Chicago, Ill.

(Presented on the Occasion of the Award of the Honor Scroll of the Chicago Chapter, A.I.C., to Dr. Eisenschiml.)

WE HONOR Dr. Otto Eisenschiml for what he has accomplished in the thirty-five years since, as chairman of the Chicago Section of the American Chemical Society, he has pioneered some of the work in behalf of the individual chemist which has distinguished him ever since.

Prior to 1913, the American Chemical Society was strictly a scientific society dominated by its academic members. At an early stage, Dr. Eisenschiml recognized the worldly needs of chemists, and that to further them the profession required not only a spokesman but also a forum. So, in 1914, with the valiant help of D. K. French, he founded the Chicago *Chemical Bulletin*. It was the first local sectional publication devoted to discussions of professional chemical problems.

A cry of anguish went up from the old guard, on the grounds that no Section had the right to express editorial opinions. But two years later the Philadelphia Section founded the *Catalyst*, and Pittsburgh the *Crucible*. Thus the present pattern of local Section publications was brought into being.

Eisenschiml used the *Bulletin* to the fullest advantage as a sounding board for his exhortations. In the first three years there appeared no less than forty-seven articles, editorials, and other items written and signed by him, in addition to an unknown number in which he used pseudonyms. I quote one gem because it is especially applicable to the present day. It appeared in 1915 and is entitled,

The Scope of Our Society

In our opinion, a society being a voluntary association of individuals, should represent the thoughts and aspirations of the members of which it is constituted. If this be a sound premise, the American Chemical Society should represent the individual chemist in all matters that pertain to his profession.

We believe that we are not far amiss in saying that the chemist—every chemist—loves his science and desires its promotion; also that he wishes to see his profession receive the respect due to its achievements; and that, finally, he hopes to have his individual talents put to congenial work and to receive the proper reward for the duties performed, both morally and financially.

That the American Chemical Society is doing wonderfully well in

regard to the furtherance of chemistry as a science cannot be reasonably disputed. That it practically neglects all other services it might render to its members is, unfortunately, also quite plain. Shall we, then, be satisfied to let things run along in the course they have been pursuing?

We hope not. We most earnestly trust to see the day when the American Chemical Society will be a fighting organization for the proper recognition of chemistry by the public. With seven thousand members behind the movement, we could attain a momentum that would be hard to stop, indeed. If in unity there is strength, then why not make use of the strength we have?

Where was the American Chemical Society when public positions were created, giving the chief chemists of cities, states and government bureaus about one-half of the salaries voted for the last hanger-on of their respective legal departments? Where was our protest when the papers ridiculed Dr. Wiley because some of his decisions had been reversed by a higher board? Did we state with emphasis that legal decisions are being reversed daily without any ridicule or even comments? We did not.

We blush individually when we read that the State of Illinois pays its sewer inspectors more than twice the amount it does to high grade bacteriologists; but as a society we do nothing about it.

The American Chemical Society itself is merely a scientific organization whose meetings and publications are devoted to the science of chemistry and to nothing else.

We are not in accord with this conception of its duties. We fully believe that it is time to change this one-sided policy of blind idealism. Much injustice has been done to the chemist on account of it, and much more may be prevented by a proper change at this moment.

What are your ideas about this matter?

We all know now the answer to that question. But even such an eloquent and forceful plea as this found the ACS immovable, and the inevitable result was the founding of our own separate INSTITUTE eight years later in 1923.

In that same year, 1915, Eisenschiml launched in the Chicago Section four services which the ACS had never before offered to its members. These were an employment committee whose function was to bring together chemists and jobs; A Guidance Committee for the purpose of instructing especially young chemists in the verities of their chosen profession; a Public Representation Committee to represent the chemist to the press and the public; and finally even, although it was not known by that name, an Economic Status Committee, which in 1915 conducted the first salary survey under ACS auspices.

Not content merely to start this pattern of committees, Eisenschiml has himself carried on some of their functions personally from that day to this. His office is a beehive for chemists looking for jobs, seeking changes of position or asking counsel regarding their personal problems. To 1637 South Kilbourn Avenue come young research chemists, plant operators, inventors, co-eds, works managers, chemical salesmen, and even research directors to obtain advice, encouragement, and reassurance.

With a completely democratic out-

look, Eisenschiml has always fostered true fraternalism within the profession. Under his guidance the society remained no longer a closed corporation. The feeling of loneliness experienced by new members was eliminated through free introductions, and a special welcoming committee was set up for this exclusive purpose. Perhaps this is one of the reasons why Eisenschiml numbers among his friends chemists from all walks of life of many generations and from all ranks.

Another freely used weapon in the Eisenschiml arsenal is his ready personal correspondence. It is a rather startling experience to be suddenly thrust into the circle of Eisenschiml's correspondents. Many a young chemist who after painful weeks of self-doubt has worked up the courage to write a letter to an editor, has suddenly awakened to find himself being battered by the Eisenschiml forty-eight hours rule—that all correspondence must be answered within forty-eight hours. Thus no sooner has he closed up his desk from acknowledging Eisenschiml's first letter than the postman is at the door with the reply, usually containing half a dozen new ideas which must be responded to. Before the young man even realizes that he has the tiger by the tail, he has been excited to the next higher energy level in correspondence.

The final armament in Eisenschiml's long campaign and the one in which he is the most fascinating is the public lecture. He is in great demand by all sorts of groups as a lecturer, and with characteristic democracy will talk to audiences large and small, young and old, known and unknown. It is significant that after such lectures, from the wives of his audiences he receives far more communications than from the chemists themselves.

Now that we have covered Eisenschiml's weapons on behalf of chemists and his targets, there remains the question, What has he used for ammunition?

A recital of the schemes, plans, and stratagems used by Eisenschiml in behalf of the chemist over the past thirty-five years would consume too much time. Let me quote one powerful statement of his. It appeared in 1919 and is entitled,

Truth

> The Association of Advertising Clubs at its recent meeting at Chicago has decided to put the word "truth" on its banner. From this we infer that a great many lies have been told in the past, and that goods have been sold under false pretenses. But from now on the advertising men are going to be good and will devote their lives solely to the noble task of getting Smith's customers to trade with Jones instead, or visa versa, and nothing but fair play will be permitted in this entertaining game which is of such paramount importance to mankind.
>
> Our newspapers are shouting themselves hoarse over this great triumph, and whole editorial pages are consumed in fiery declarations in which the great value of advertising men for the community is demonstrated with that eloquence

which is always necessary when one is trying to prove that water is running up hill.

We know of one profession on whose banner the word truth has been written since its earliest existence. Not merely the truth which avoids telling wilful lies, but the truth which is wrested from nature in a continuous struggle, and every particle of which is a stepping stone for the whole world into higher regions of civilization. But as we chemists are not organized for profit, and do not hold parades on Michigan Boulevard, there need be no fear for us of violent laudations on the part of our editors.

As one of the methods for achieving this recognition, Eisenschiml has repeatedly urged that publicity and public understanding be sought both for chemists and for chemistry. Out of this idea has developed the ACS News Service and a much healthier attitude of the newspapers in connecting scientific achievements with the chemists who brought them about.

Eisenschiml has also advocated that chemists cease to concern themselves solely with chemistry and participate in the life of the community to a much greater extent than they now do. Eisenschiml has advocated that newspapers seek the opinions of chemists on public questions on which they can be as well qualified as the lawyers and business men who are usually quoted; that chemical patent decisions be based on the conclusion of chemists rather than of lawyers; and he fought the old tradition that scientific men could not be entrusted with matters calling for executive minds.

Eisenschiml recommends group action only for certain special purposes and stresses the importance of individual action. In his opinion, ninety per cent of a man's advancement is due to individual effort and only ten per cent to group action. He is decidedly opposed to unionization, and has remained cold to schemes for licensing and registration.

It is most instructive to know the timing of Eisenschiml's utterances. He never talks strongly for chemists' recognition during a depression, but becomes mighty active during periods of prosperity. This is directly contrary to those who call loudest for bettering of their economic status during a depression and forget about it entirely when times are good.

Eisenschiml advocates serious consideration to whether the flow of chemists from colleges could be regulated in keeping with the law of supply and demand. One method which he has stressed for accomplishing this, is entirely in keeping with this economic law. It consists of making it possible for the young chemical aspirant to learn the exact nature and especially the economic conditions of the profession which he desires to enter. He has talked about this to students in almost every college in the Middle West. The Vocational Guidance Committee and the publication on chemistry as a profession of

the Chicago Section are in line with this idea.

Many will wonder why I have not mentioned the ideal which is most universally associated with Eisenschiml. That is the admonition that chemists should go into business for themselves. I do not believe that Eisenschiml expects it universally, blindly to be followed, but he preaches it as an ideal goal toward which chemists should strive. What he really means is to try to have you acquire those characteristics which would make you a success in your own business for in proportion as you succeed in this, you will improve your status as a chemist and the status of the profession. A great many enterprises now functioning had their origin in discussions which O.E. had with ambitious young chemists. His satisfaction, however is not numbered by these, but by the general improvement in the chemist's attitude toward himself, which has been brought about by a constant questioning of the other professions, such as, in Eisenschiml's famous talk before the lawyers, characteristically entitled, "Gentlemen, How Do You Do It?"

We should pause to reflect that Eisenschiml's many contributions have all been made at a great disadvantage and from a minority position. All of us who would improve the lot of chemists are in the minority. For every one who seeks to change established policies and practices, there are always sixteen stand-patters who oppose changes on principle, regardless of worth. O.E. has been in the minority all his life, and his own life has proved that, with proper spirit, ingenuity, and endurance, water can be made to run up-hill.

SASI Meeting

How can the South harness its scientific brains to its agriculture brawn to improve its industrial standing? How can scientific research increase farm production efficiency, improve methods of preserving and transporting farm products, and find new industrial uses for the output of its farms? Dr. Stewart J. Lloyd, F.A.I.C., president of the Southern Association of Science and Industry, Inc., 5009 Peachtree Road, Atlanta, Georgia, announces that these questions will be answered at the Winter Meeting of the Association to be held January 23rd and 24th at the Hotel Roosevelt, New Orleans, La. Non-Members of the association are welcome at all sessions.

Smith to Davies Nitrate

Merton B. Smith, F.A.I.C., formerly with Allied Asphalt & Mineral Company, Dunellen, N.J., has joined the staff of Davies Nitrate Company, Metuchen, N.J., as chemist in charge of production control and product development.

Eisenschiml—The Historian

(A report of the talk given by Paul M. Angle, Director, Chicago Historical Society, on the occasion of the award of the Honor Scroll of the Chicago Chapter to Dr. Otto Eisenschiml.)

PAUL M. Angle, director of the Chicago Historical Society, spoke of the unusual qualities that mark Dr. Eisenschiml's work as a historian, stressing first of all his regard for fact and his persistence in establishing fact. That is supposed to be a characteristic of all historians, but in practice many accept evidence of doubtful validity if it happens to suit their purpose. Dr. Eisenschiml, on the other hand, has always gone to great lengths to establish the materials of history beyond question.

In addition, Dr. Eisenschiml has always been completely unemotional about the facts of history. "What do you think of Abraham Lincoln?" someone once asked him. "What do you think of H_2O?" was his reply. Such a dispassionate attitude is disturbing to many people, but if we are ever to know what happened in the past, and why, it will only be through historical research conducted in this spirit.

But, Mr. Angle pointed out, facts alone, no matter how carefully established, no matter how frankly faced, are not sufficient. The *World Almanac* is an admirable book, but it is not history. Facts must be selected and arranged in such a way that they will have significance. Herein lies one of Dr. Eisenschiml's strongest qualities as historian. In all his writings he has searched for the significance of the historical data at his command, finding, especially in his Lincoln studies, implications to which earlier historians had been blind.

Finally, said Mr. Angle, Dr. Eisenschiml possesses literary skill in high degree. Without that quality, the historian's writings remain on library shelves, and influence thought and action about as much as the telephone book.

This combination of qualities—regard for fact, objective approach, perception of significance, and ability to write with clarity and color—are rare even in the professional historian. When they are found in one who is also chemist, inventor, and manufacturer, they certainly qualify that person for the honor bestowed on him.

Presentation of Honor Scroll

President Lawrence H. Flett, AIC

—Paint, Oil & Chemical Review

President Flett Presenting Chicago Chapter Honor Scroll to Dr. Otto Eisenschiml, F.A.I.C. In background Dr. Herman S. Bloch, Chairman, Chicago Chapter.

THE AMERICAN INSTITUTE OF CHEMISTS is now in its 26th year. During that period, there has been an unrelenting effort among its membership to bring a spirit of professional consciousness and professional responsibility to the chemist. This effort has borne rich fruit. Today the chemist can point with dignity to the public recognition of the integrity of his profession.

The man we are honoring tonight stands out as an indomitable leader whose unwavering devotion to professional consciousness has been an inspiration to all of us. Throughout his career and throughout his membership in the INSTITUTE, he has worked unremittingly in the service of the chemist. It would be difficult to find a parallel of such unselfish effort.

The recipient of the Scroll can also be proud of the sacrifices he has

made to help the less fortunate and the less talented chemists.

Dr. Otto Eisenschiml, Fellow of THE AMERICAN INSTITUTE OF CHEMISTS, it is a privilege to be permitted to come to Chicago and to present to you this Honor Scroll of the Chicago Chapter. It is an award which has been made great by the list of distinguished past recipients, a list to which your name is now added with pride. This Citation reads, . . . "in recognition of your contributions to industrial chemistry, to the professional interests of chemists, and to the cultural wealth of the community."

Waterfall Appointed

The American Institute of Physics, 57 East 55th Street, New York, N. Y., announces that Wallace Waterfall, formerly director of research and product development for the Celotex Corporation, has been appointed to the newly created position of Executive Secretary of the American Institute of Physics. Mr. Waterfall, whose experience has been largely in industrial physics, stated that "if we are to develop the kind of interest and understanding in physics that is already accorded chemistry, we have to make it more tangible to the public. We need to develop a consciousness of physics as an industrial as well as academic profession and a consciousness of the part physics plays in the big and small things of everyday life — not just its occasional spectacular contributions."

Sterwin Chemicals Inc. Formed by Sterling Drug

Sterwin Chemicals Inc. has been organized as a subsidiary of Sterling Drug Inc., to supply vitamins, vitamin concentrates, vanillin, flour bleaching and maturing agents to process manufacturers as well as sanitizing agents to industry. In making this announcement, James Hill, Jr., president of the parent company, said the new subsidiary will distribute the products previously sold by the Special Markets-Industrial Division of Winthrop-Stearns Inc. and the Vanillin Division of General Drug Company, which are also Sterling operations. P. Val Kolb, who has been in charge of these activities, has been named president of Sterwin Chemicals Inc.

Bucy with Sun Chemical

Ed. H. Bucy, F.A.I.C., is now sales coordinator, under A. C. Horn, for the Divisions (other than Graphic Arts) of the Sun Chemical Corporation, Long Island City 1, N.Y. Mr. Bucy was formerly general manager of the Coated Fabric and Industrial Finishes Departments of Atlas Powder Company.

How Can A Chemist Increase His Value?

C. P. Neidig, F.A.I.C.

Chemical Products Division, Atlantic Refining Company Philadelphia, Pa.

(An address presented before a recent meeting of the New York Chapter, A.I.C.)

GENERALLY speaking the more valuable an article, the higher is the price which must be paid if one is to acquire it. Similarly if a person, whether he be lawyer, doctor, baseball player, chemist, opera singer, or the like, increases his abilities in a definite manner, it is logical to assume that he will command a higher salary. By the same token many people have outstanding abilities but are in the wrong field, and consequently their true value is not recognized and not rewarded.

Those of you who are baseball enthusiasts will certainly recall the story of Bob Lemon, star pitcher of the World Champion Cleveland Indians. A failure at third base and in the outfield, he was due to be shipped down to the minor leagues until it was decided to try him as a pitcher, because he could throw hard. He was so successful in this change that his salary was greatly increased. Of questionable value as an infielder or outfielder, he became of real value to his team as a pitcher. Remember that he was the same person, only now his greatest capabilities were being utilized and rewarded. This transition was not easy. It involved a large amount of practice before he could be a successful pitcher.

Although it may be more glamorous to transfer a mediocre third baseman into a star pitcher, there are many similar instances when a chemist with little ability for research is made into a top-flight salesman. Or perhaps the change has been from production to development work. Or it might even be from routine analytical work to important research work. I am sure you all know of instances where similar changes have been made to the real advantage of the individual and company. In these instances, the true value of the chemist has become more obvious and has usually been rewarded.

I do not believe that all these changes have been made as yet, and in fact I am enough of a pessimist to believe that most of the needed changes will not be made. There is good reason for this pessimism. Even a top-flight executive, group leader, or plant manager, is far too busy to critically analyze all his men to de-

termine the capabilities of each. The men themselves must take the initiative.

How are these men to recognize whether they are performing up to the peak of their abilities? How are they to realize whether they are best fitted for research, sales, production, or any other position?

To find the answers to these questions is a real problem and involves a considerable amount of self-analysis.

I do not believe that any man can approach his true value unless he is happy and contented in his job. A chemist with small ability, who is satisfied with his job and who is doing the things he enjoys, is far more valuable to himself and his company than the brillant chemist who dislikes his work.

People or Things

This paper is directed to those chemists who are not satisfied with their present position and who have a desire to improve themselves—that is, to increase their value. Such a person must ask himself a fundamental question. Does he prefer to work with people or with things? The answer to this question will help him to decide whether or not he is in the right field.

The chemist who is doing research work and who actually prefers to work with people should seriously consider a move which involves more people and less things. Perhaps he should get into technical sales, new products development, market research, or similar fields where he can utilize his technical background, and still work with people. On the other hand, if the chemist prefers to work with things and is unhappy doing pure research work, there are such fields as production, applied or process research, or design if he has had sufficient engineering training.

There are a number of gifted people who have capabilities which would enable them to do a number of jobs well. Sometimes these people are not able to decide which job they are better fitted for. There are also a number of persons, perhaps suffering from an inferiority complex, who are unable to decide what they like to do or what they can do. Fortunately there is a possible solution to these individuals' problems. It involves taking a series of aptitude tests which are designed to bring out the latent capabilities of the individual.

The preceding suggestions for self-analysis have been based on the assumption that the chemist who desires to increase his value is unhappy in his present position because of the type of work which he is doing. If, as a result of this self-analysis, he believes a different field would be more interesting, it is obviously up to him to discuss the problem in detail with his superior. His presentation to his superior must be well thought out and he must present logical reasons why it will benefit the com-

pany if he were to make this change. Remember that few companies are so philanthropically inclined as to move men around from one department to another unless the company also has something to gain.

To Increase Value

There are a number of chemists who have a burning desire to increase their value (meaning their salary) but are somewhat loath to increase their value (meaning their worth) to the company. These chemists enjoy the work they are doing, but believe they are underpaid.

Some may say it is wishful thinking, but I am firmly convinced that if you can show your superior that you are becoming more valuable to him and to the company, your salary will be increased. And I do not mean that you must enumerate the reasons why you are more valuable and then ask for a raise in pay. It requires a more subtle approach.

If one takes time to think of how he can increase his value, he immediately thinks of studying. For after all isn't that why he went to school in the first place? He realized that to become a chemist he needed at least a college education. Some, when finished with the basic four-year course, decided they had sufficient formal education and went to industrial positions. Others believed more education desirable and went to graduate school.

Regardless of where the formal education ceased, surely no chemist should feel that he is through studying. Isn't it a bit ridiculous on the one hand, to point to the rapid advances made by science and at the same time mentally agree that no further study is needed? How can the chemist keep up-to-date with these advances if he doesn't study? There are a number of ways in which a chemist can continue his study.

The most obvious is to go to night school and take graduate courses in chemistry, business administration, economics, marketing, etc. You may wonder why these last subjects have been included. The reason is simple. To become of real value to the company, an employee must be well-rounded in business in addition to being capable technically. There are those chemists who have a distinct aversion to economics except as it affects their salary. That is perfectly alright, if at the same time the chemist realizes that by refusing to become interested in more than the purely technical side, he definitely limits his value to the company.

Obviously only those chemists who work in areas where colleges are located can avail themselves of the opportunity of night school. Recognizing this problem, a number of local sections of the American Chemical Society have initiated refresher courses and specialized lecture courses to help bring chemists up-to-date on new developments.

Regular attendance at local meetings of The American Institute of Chemists, the American Chemical Society, the American Institute of Chemical Engineers, and similar groups, is definitely recommended for chemists. It is surprising, the information which can be obtained from the speaker and from others in attendance. This is, of course, a less formalized but an equally important method of study.

Perhaps the most obvious and most practiced method of improving one's self technically is by reading technical journals and books. And yet there are many chemists who are too lazy mentally to read these journals. The excuse offered for not reading is invariably that the chemist is too busy, and besides, the company doesn't give him time to read. That may be true, but the company does not control his evenings and if he honestly wants to increase his value he must make some sacrifices of his own time.

Responsibility

The valuable men in a company are invariably those who have shown the ability to accept responsibility. Yet one of the hardest things to find is people who will do just that.

Therefore, one of the best suggestions that can be made to a chemist seeking to increase his value is to advise him to go out of his way to seek responsibility. Naturally, once he has accepted the responsibility he must follow through and do a good job. As a practical matter, what better way is there to impress your superior with the fact that you are more valuable than to take some of the load from his shoulders so he will have time to do the same for his superior? Obviously this responsibility cannot be taken without the knowledge and consent of your executive. However, when you know a job has to be done and you feel you can do the job, why not, for a change, suggest to your superior that you do it? Stated simply, offer to do extra things and you will soon find yourself rising in the opinion of your superiors.

Reports

In this connection, what might seem like a small matter is often very critical. I refer to the matter of reports. There are two methods for the transmittal of information up and down in organization. One is by word of mouth, and the other is by written reports. Yet most chemists are poor speakers and even poorer writers. When you submit a report to your supervisor it should be written with the thought that at some later date he must pass this information on to his superior, and so on, until, if sufficiently important, it reaches the Board of Directors. Realizing this, why not include in your report a short summary so sufficiently clear and comprehensive that your superior can use it as is or with minor changes? Isn't it human nature for a supervisor to look with

favor on such a subordinate as contrasted with the one whose report is so garbed that it takes hours of study to decide just what did happen and how significant were the results?

By the same token, when oral reports are made to your superior, make them complete. It is obviously bad to make a report and then, in the course of questioning, have your superior bring out things which you neglected to consider. Try to anticipate all possible questions and have the answers ready, if you wish to show your superior that you are a valuable member of his group.

In addition to these few points, there are a number of other things a chemist can do to increase his value. Most of them are a matter of common sense, provided he thinks about it. Thus to advise him to learn to get along with his associates is so elementary that it is often forgotten in this day and age. Perhaps the best suggestion that can be given is to ask the chemist to put himself, for a moment, in the position of his supervisor. Under these changed conditions what does our chemist demand of his subordinates, before he believes a raise in pay should be granted? After thinking about this for a time and then realizing that his supervisor is also a human being who will react in much the same way as he does, I think our chemist will be able to decide what he should do to show that he is a more valuable asset to the organization. One conclusion I think he will come to is that he must increase his value, that is earn his raise, before he will get it.

The preceding suggestions have been, of necessity, general in nature because each person's problem is different. The underlying thought behind them is the need for self-analysis and critical evaluation.

Unfortunately one does not set out tonight to increase his value and expect that two weeks from tonight it will be accomplished, and one's supervisor will recognize the complete metamorphasis—not unless the supervisor has come under the influence of the little fat man with the long white beard commonly known as Saint Nicholas. If you become fired with ambition to increase your value and thus earn an increased salary, remember that it will take time.

Fireproof Suit

Solomon Schneider, F.A.I.C., in charge of the textile section of the development branch of the industrial test laboratory of the Philadelphia Naval Base, assisted in the development of the Navy's new fireproof suit which was publically demonstrated September 15th. The suit consists of layers of flannel, asbestos, glass cloth coated with Neoprene, and a final layer of water-repellent glass cloth. It was designed for use in fighting gasoline fires.

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Newton Receives Award

Dr. Roy Chester Newton, F.A.I.C., vice president in charge of research, Swift & Company, received the Nicholas Appert Medal of the Institute of Food Technologists, at the Annual Conference held in San Francisco July 9-15th. The medal is presented annually "to anyone who, because of his preeminence in and contributions to the field of food technology, is deemed worthy of special recognition. . . ." Dr. Newton's contributions to the fats and oils field; his stimulation of basic research in agriculture and nutrition; his support to insure a valuable research staff, and his personal work to aid the chemical profession, were thus recognized.

Local Chapter News

C. P. Neidig, F.A.I.C.

New Jersey

Chairman, Dr. P. M. Gresy
Vice Chairman, Dr. C. A. Amick
Secretary, Harry Burrell
Treasurer, John B. Rust
Representative to National Council,
Dr. R. P. Parker

The New Jersey Chapter met October 31st, at Newark College of Engineering, Newark, N.J., for a panel discussion meeting on the subject, "Does Present Education Properly Train Chemists for Industry?" The speakers were Dr. C. L. Brown, F.A.I.C., assistant manager of research and development, Standard Oil Development Company, who discussed the non-technical side of the subject; Dr. A. J. Frey, F.A.I.C., vice president in charge of production and development, Hoffman-LaRoche, Inc., who spoke from the production standpoint; and Dr. M. L. Crossley, Hon. A.I.C., director of research, American Cyanamid Company, who discussed the technical point of view.

New York Chapter

Chairman, Dr. Martin Meyer
Vice Chairman,
Dr. Lincoln T. Work
Secretary-Treasurer,
Dr. M. J. Kelley
Representative to National Council,
Karl M. Herstein
Publicity, G. A. Kirton

The New York Chapter met October sixth at Majors Cabin Grill, New York, N.Y. to hear A. J. Nydick, F.A.I.C., New York patent lawyer, discuss, "Exploiting a Patent."

The individual inventor, after he has received a patent may manufacture the product, or use the process, himself; sell the patent outright, or license it to others. The latter is the more general procedure. The final decision is purely a matter of business judgment. If the patent is licensed to others, it must be remembered that it is not possible in this alert world to be sure of an exclusive monopoly for long. The patent gives an exclusive right to a certain way, but other persons, perhaps the licensee's own chemists, are going to exert their ingenuity to find a new or better way of doing the thing, and thus avoid the patent, or even take out a new patent.

When selling a patent, be sure of its scope and be sure of the priority—how big it is and what it can do. The patentee must not deceive himself about the scope nor the value of his brainchild. There are few patents of tremendous value. A patent can be priced out of the market. A fair price should be set to encourage others to put money behind the product or pro-

cess— and it does take money to go into production.

Today, the patentee needs a patent lawyer, an attorney, and a tax expert to take care of the many complicated and intricate problems that arise. The consulting chemist may also be needed to complete research on the product or process for which a patent is desired.

The next meeting of the Chapter will be held November 16th at 8:00 p.m., at The Brass Rail, 521 Fifth Avenue, New York, N.Y. Dinner will be served beforehand in the dining room at menu prices for those wishing to come at 6:30 p.m. The meeting will be devoted to discussion on, "Shall the Institute Begin a Campaign to Secure Licensure of Chemists in New York State?" Speakers are Dr. Donald B. Keyes, Hon. A.I.C., and Dr. Foster D. Snell, past president, A.I.C. Recent new developments in this subject will be presented. Members and their guests are invited to participate in the discussion.

Niagara

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Vice Chairman, Bert Wetherbee

Secretary-Treasurer,
Dr. M. H. Fleysher

Representative to National Council,
Rev. James J. Pallace, S.J.

Reporter to THE CHEMIST,
Lyle H. Mahar

The Niagara Chapter held its first meeting of the season on October fifth at Canisius College, Buffalo. James Ogilvie, group leader, Research Department, National Aniline Division of Allied Chemical and Dye Corporation, and chairman of the Chapter, spoke on "Chemistry and Esthetics." Stating that of the many ways in which the chemical profession may enhance its prestige in the public estimation, one of the most appealing is to introduce more beauty into the world, the speaker proceeded to link up the aid that modern chemists have contributed to the desire of humanity to adorn itself and embellish its surroundings. This was done by contrasting the technology of color production and use before and after Perkin's foundation of the synthetic color industry. A historic review of the most outstanding dyestuff discoveries was linked up with their effect on the textile, printing, pigment and synthetic fabric industries and the progressive changes which this brought about in styles of human adornment.

Lerner to Phil Kalech Research Laboratories

Louis L. Lerner, M.A.I.C., is now vice president and director of research of Phil Kalech Research Laboratories, Chicago 11, Illinois. He was formerly executive vice president and technical director of Allied Home Products Corporation, Beloit, Wisconsin.

For Your Library

Recent Advances in Analytical Chemistry

Vol. VII of series, "Frontiers in Chemistry" published under auspices of Western Reserve University. Edited by R. E. Burk and Oliver Grummitt. Interscience Publishers. 1949. 209 *pp.* 6"x9". $4.50.

This volume deals with the newer methods of analytical chemistry with particular emphasis on the application of the more recently developed physico-chemical and chemical methods. The book contains chapters on Voltammetry and Amperometric Titrations; Inorganic Analysis with Organic Reagents; Colorimetric and Gravimetric Organic Reagents; Application of Infrared Spectroscopy in Analysis; Electron Microscopy and Microanalysis; Fractionation, Analysis, and Purification of Hydrocarbons; and Applications of the Mass Spectrometer; written by authorities in the field. The analytical chemist will find a great deal of valuable and stimulating information in this work.

—Willian H. Van Delden, F.A.I.C.

Milk and Dairy Products

By Lincoln M. Lampert, F.A.I.C., Chemical Publishing Company. 291 *pp.* 8½" x 5½". *Price* $7.00.

The author's background of education, commercial experience, and activities in the California State Dairy Control Laboratory, including library contacts, furnished him with a view point from which to sift and condense into a compact volume the pertinent facts from the highly diversified literature pertaining to dairy science. Widely-scattered data are incorporated in convenient and highly useful tables.

One who expects to find descriptive technology will be disappointed. The chapter on "Cheese", for example, introduces the important varieties by giving the salient scientific principles underlying the method of manufacture, and illustrating the procedure with selected photographs. Fluid, concentrated, and special milks, butter, and ice cream are treated similarly. In this the author seems to have satisfied his aim, "to give reliable information, in a non-technical manner, on the composition nutritive value, chemistry and bacteriology of milk and milk products."

The book is well documented with references which have been selected and interpreted with discrimination. This reviewer regards the book, not as a textbook, but as a valuable reference guide for teachers, students, nutritionists, food technologists, and public relations officials in the dairy field.

Errors are few and largely typographical. The excellent format including the illustrations, is reflected in the cost of the book.

—G. A. Richardson

Trace Elements in Food

By G. W. Monier-Williams. John Wiley & Sons. 1949. 511 *pp.* 6" x 9¼". $6.00.

This is an important standard work, based on serious research by an outstanding expert, Dr. Monier-Williams, FRIC, who was food inspector and chemist in charge of the Food Research Laboratory of the British Ministry of Health. This is a "must" for any library that is supposed to give dependable answers to questions concerning any of thirty-seven trace elements. Many of them are of great toxicological interest, even though they may be present in the body and in foods in amounts of far less than 0.005 per cent. Other of the trace elements are of nutritional value for plants, and various species of animals, including man. For instance, the chapter on copper fills 63 pages, on lead, 43, zinc 31. Not only does the author tell about each element's nutritional significance (with a most complete list of references to American, English, Australian, German, French, and other literature) but also about its dangers, the many ways it may become a constituent, or an occasional ingredient of natural or manufactured foods, and about regulations governing its usage. A special fea-

ture is the analytical section which discusses and compares the several recommended methods given for each element.

To illustrate the wide scope which the author set for himself, and the thoroughness which he put into his work, I list a few of the subjects dealt with in the chapter on copper: enzymes; hemoglobin; biological processes in the organs of the body; absorption, excretion, retention; minimum requirements (pigs, etc.); deficiency effects (cattle, sheep); toxicity; soil and plants; fungicides; corrosion (milk containers); dairy products; vitamin C destruction; fermentation; haze in wine; foods; public health; various analytical methods; references.

—Rudolph Seiden, F.A.I.C.

A Catalogue of Insecticides and Fungicides

By Donald E. H. Frear. Vol I. Chemical Insecticides. 204 *pp.* 8"x10¾" $6.50. *Vol. II. Chemical Fungicides & Plant Insecticides.* 154 *pp.* 8"x10¾" $5.50. *Chronica Botanica Company, Waltham, Mass. Stechert-Hafner, Inc., New York, N.Y.*

These volumes are a condensed summary of the literature on insecticides and fungicides summarizing the properties of about 10,000 compounds. A tremendous amount of work is thus made available. Various compounds have been classified according to a numerical code, which, however, is somewhat cumbersome and requires study in itself. Author, literature, and patent list references are cross-indexed, and an alphabetical index is given in the second volume. The books are bound in fabrikoid, but a limited number copies will soon be issued bound together in morocco and interleaved with blank paper, at a price of $22.50.

These are most valuable volumes for workers in the field of insecticides and fungicides.

—Dr. John A. Steffens, F.A.I.C.

Chemical Books Abroad

Rudolph Seiden, F.A.I.C.

Among the very active German publishing houses is the J. Ebner Verlag (Ulm-Donau). These are some of its recent publications:

(1) *Weltmacht Atom.* By Hermann Schuller. Second edition, 1947. 695 pp. Many illustrations. (DM 24. or $7.20). The title does not tell that this excellent book contains much more than the story of the atom and its rise to world power. It is an interesting account of the development of chemistry from its early beginning, through the period of alchemy, to our modern industries and laboratories. This work should be translated into English and made available not only to laymen, who will be fascinated by the vivid accounts of chemists' contributions to our civilization and high standards of living, but also to busy chemists in factories and schools, because of the wide horizon the capable author opens for them when philosophizing and politicizing for a united world.

(2) *Lebensproblem und Katalyse.* By Alwin Mittasch. 1947. 152 pp. (DM 6.80 or $2.05). In addition to the excellent review on biocatalysis by the great expert Mittasch, this book contains interesting articles or lectures on catalysis by Berzelius (1835), Robert Mayer (1876), Ostwald (1898, 1901, 1903), Sabatier (1912), and Jerome Alexander, F.A.I.C. The latter's contribution is entitled: "Catalysis in Industry Biology and Medicine," 1946. This book, too, would enrich our popular-scientific literature if it were made available in English translation.

(3) *Von der Chemie zur Philosophie.* By Alwin Mittasch. 1948. 764 pp., 5 illustrations. (DM 22. or $6.60). This is a collection of publications and lectures by this well-known German chemist (born 1869, retired 1934), a pupil of Ostwald

and Bodenstein; later a co-worker of Haber and Bosch; today one of the leading authorities on catalysis. The three parts of the book deal with the catalytical idea (particularly with biocatalysis), with the catalytical effect upon nature (e.g., causality; "causalism" and dynamism; cause and force), and with historical notes on Schopenhauer, Robert Mayer, Nietzsche, Ralph Waldo Emerson, and others.

Note: Since these reviews were written, the German mark has been devaluated, thus reducing the U.S. dollar prices of the books mentioned above.

Booklets

The National Bureau of Standards announces that the following publications are available from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.:

RP 1953 "A Spiral Contractometer for Measuring Stress in Electrodeposits." 16 pp. 10 cents.

RP 1954 "Calculation of Stress in Electro-deposits from the Curvature of a Plated Strip." 19 pp. 15 cents.

RP 1959 "Effect of Convection Currents on the Distribution of Striae in Pots of Optical Glass" 17 pp. 15 cents.

RP 1956 "The System BaO-B^2O^3." 8pp. 10 cents.

RP 1957 "Separation of the 177° to 200° C Fraction of Petroleum and the Isolation of Normal Undecane." 6 pp. 10 cents.

"Catalog 135. Interim Bulletin of Recent Acquisitions." Includes books on science and medicine. Twopence. Davis & Orioli, 56, Maddox Street, London, W. 1. England.

"Technical and Scientific Books. 1949." Catalog. Chemical Publishing Company, Inc., 26 Court Street, Brooklyn 2, N.Y.

"Gas Turbines in Automobiles. A Study Comparing the Calculated Performance of a Gas Turbine with Present Automotive Engines." By W. A. Turunen of General Motors Corporation. The Society of Automotive Engineers, Inc., 29 West 39th Street, New York, N.Y.

"New Miniature Scotch Marine Type Boilers." Steamaster Automatic Boiler Company, 5819 Compton Avenue, Los Angeles, Calif.

"Quarterly Progress Report to the Congress." By the War Assets Administration. First Quarter, 1949. U.S. Government Printing Office, Washington, D.C.

"New Materials of Construction Bulletin Catalog Section 97." List of construction and packing materials for use with 300 industrial liquids and gases. Fischer and Porter Company, 97 County Line Road, Hatboro, Pennsylvania.

"Annotated Bibliography on the Use of Organolithium Compounds." A literature review up to January 1948, Metalloy Corporation, Rand Tower, Minneapolis, Minnesota.

"Hunter Color and Color Difference Meter." Descriptive leaflet. Henry A. Gardner Laboratory, Inc., Optical Section, Bethesda 14, Maryland.

"Triplex Film Applicator," "The Baker Film Applicator," and New 60° Glossmeter." Leaflets available from Henry A. Gardner Laboratory, Inc., 4723 Elm Street, Bethesda, Maryland.

"High Vacuum Equipment. Cenco Engineering Bulletin 10A." Revision of Cenco's 48-page bulletin on high vacuum pumps and accessory apparatus. Department G, Central Scientific Company, 1700 Irving Park Road, Chicago 13, Illinois.

"Storage Tank Capacity-Size Calculator." Slide rule type of calculator to show storage capacity of tanks. Those concerned with the storage of liquids or gases may obtain free calculators by writing Department C, Hammond Iron Works, 630 Fifth Avenue, New York 20, N.Y.

"Consulting Services." 12th Edition. A free copy may be obtained by referring to THE CHEMIST, and sending name, company in full, and complete address, including postal zone number, to the Association of Consulting Chemists and Chemical Engineers, Inc., 50 East 41st Street, New York 17, N.Y.

"Silvacon for the Rubber Industry." 4-page bulletin No. 150. Available from Silvacon Sales, Weyerhaeuser Timber Company, Longview, Washington.

"New Waukesha Vented Pump." Request information from Waukesha Foundry Company, Waukesha, Wisconsin.

"Glink (Glass Ink). Information sheet. Stewart Research Laboratory, Telegraph Road and Chemical Lane, Alexandria, Virginia.

"New Oil-Base Paints Containing DDT for Long-Lasting Insect Control." Sonoco Products, Department PL, Hartsville, South Carolina.

"What is a Polymer?" Guide to way in which Polymers are used in the textile, paper, and packaging industries. Polymer Industries, Inc., 1106-30th Avenue, Astoria, New York.

Reprints of "The Atom," color-illustrated article in the May 16, 1949, issue of *Life*, may be obtained for 10 cents each from Department A, *Life* Magazine, 9 Rockefeller Plaza, New York 20, N.Y.

"Adenosine-5-phosphoric acid (AMP)." Information data. Schwarz Laboratories, Inc., 202 East 44th Street, New York 17, N.Y.

"The Gilmont Ultra-Microburet." Descriptive sheets. The Emil Greiner Company, 20-26 N. Moore Street, New York 13, N.Y.

"New, Improved Othmer Still." Description. The Emil Greiner Co., 2026 N. Moore Street, New York 13, N.Y.

"The Brooks Oil Story since 1876." Illustrated brochure. Brooks Oil Company, Cleveland, Ohio.

"Industrial Opportunities on Southern Illinois' Crab Orchard Lake." Ten-page brochure available from Division of Information, Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C.

"New Kemp Dryer Catalog." 32-page, illustrated. Available from C. M. Kemp Manufacturing Company, Baltimore, Md.

Catalogs of Translations of Manufacturing Processes and Methods from German Chemical Manufacturers: "Drugs and Fine Chemicals, Bulletin 35," and "100 Pharmaceuticals, Bulletin No. 28." Also Supplementary List of Translations of Russian scientific articles. Request them from Research Information Service, 509 Fifth Avenue, New York 17, N.Y.

"Malononitrile." Information sheet. Schwarz Laboratories, Inc., 202 East 44th Street, New York 17, N.Y.

"Monthly Chemical Market Reports." Sample page and information available on request to Foster D. Snell, Inc., 29 West 15th Street, New York 11, N.Y.

Chemists Available

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Twenty-five years research and development, mainly with major companies. Experienced in modern laboratory techniques (e.g. vacuum, electrochemistry, liquefied gases). Pilot plant design and operation. Reports, technical and economic surveys, patent studies. Unusual knowledge in many fields of chemistry, science, literature, languages. High offices in professional organization. Fellow, A. I.C. Desires responsible position in development research. Please reply to Box 112, The Chemist.

Scientific Literature Research

Woman chemist, Ph.D. F.A.I.C., broad scientific and linguistic background, is available for scientific literature research, patent search and translations from French and German. Free to travel to any library center required. References. Please reply to Box 114, The Chemist.

Laboratory Space

Laboratory space for rent in metropolitan area of New York. Please reply to Box 110, THE CHEMIST.

Charles W. Rivise, of Caesar & Rivise, Philadelphia, co-author of *Interference Law and Practice* and *Patentability and Validity*, lectured on "Inventions in the Chemical Field," at the Practising Law Institute, New York, N.Y., July 20th.

Colbeth Elected President

I. Milton Colbeth, F.A.I.C., has been elected president of the Baker Castor Oil Company, Inc., 120 Broadway, New York, N.Y. He joined Baker in 1920, after a period of military service as physical chemist in the U.S. Chemical Warfare Service, and a short time with Proctor and Gamble. After setting up a control system for Baker, Mr. Colbeth's time was devoted to original research in castor oil processing. This led to the issuance of several important groups of patents (1) process for breaking petroleum emulsions, (2) testing devices, (3) processing of castor oil, (4) formulation of lubricants, hydraulic fluids and insecticides. In 1929, he was appointed chief chemist in charge of organic research and process design; in 1931, he became chemical director; in 1948 he was elected vice president of the operating division. He received the B.S. degree from City College of New York.

SCI Appoints Public Relations Director

Dr. Gustavus J. Esselen, F.A.I.C., president of the American Section of the Society of Chemical Industry, announces that Paul B. Slawter, Jr., vice president of the House of J. Hayden Twiss (Advertising), 205 East 42nd Street, New York, N.Y. has been appointed Director of Public Relations.

Condensates

Ed. F. Degering, F.A.I.C.
Armour Research Foundation

No Chemists

Neurosis: From a large clinic come reports of analysis of the occupations of 300 consecutive patients who sought medical aid because of neurosis. In about one-fourth of these, the condition seemed to be purely of the mind, since no damage to any organ of the body was determined. The frequency of neurosis was somewhat higher among women than among men and was more frequent in the younger age groups than in the older. The investigators observed that, as people became older, they became less emotional. The lowest frequency of neurosis was in railroad engineers. Neurosis was also infrequent among doctors and farmers. The highest percentage was found in teachers in public grade schools and high schools. Among the teachers, the incidence was 54 per cent; unmarried women, 32 per cent; clergymen, 39 per cent; housewives, 36 per cent; lawyers, 36 per cent; dentists, 30 per cent; farmers, 19 per cent; doctors, 17 per cent; and among railroad engineers, 9 per cent.

—Dr. Morris Fishbein
in *Cosmopolitan*.

Professional Services

National Council Meeting

The next meeting of the National Council, A.I.C., will be held December 14, 1949, at The Chemists' Club, New York, N.Y.

Rare Chemicals

The National Registry of Rare Chemicals, Armour Research Foundation of Illinois Institute of Technology, Technology Center, Chicago 16, Illinois, invites inquiries from scientists in all parts of the world who may want rare chemicals or who can supply them.

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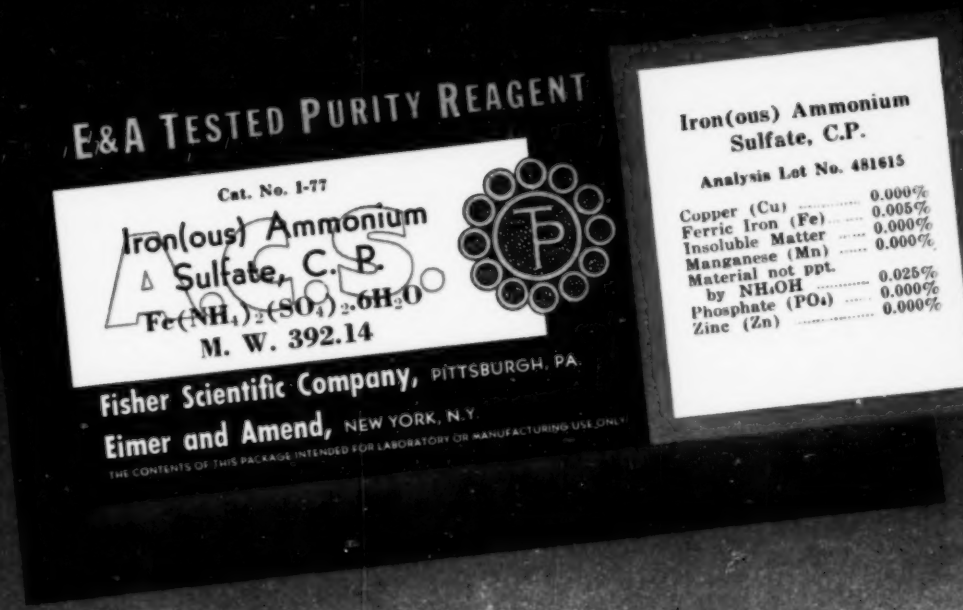

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